

# Notice of Allowability

Application No.

10/708,739

Examiner

Richard V. Muralidar

Applicant(s)

ELDER ET AL.

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2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to after RCE amendments received 10/30/2007.
2. ☒ The allowed claim(s) is/are 1 and 3-29.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**BAO Q. VU**  
**PRIMARY EXAMINER**

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An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Eric J. Weierstall, Esq. Reg. No. 46, 331 on 1/21/2008. Applicant has submitted the following amendments to the claims, which is made of record below. By this amendment, claims 64-65 are cancelled and previously withdrawn claims 7-9, 14-16, and 18-28 are rejoined with allowable base claim 1.

1. (Previously Amended) A vehicle multiple battery system operating a vehicle electrical system connected between a system positive and a system negative terminal, the system comprising:

a main battery having a main positive output coupled to an at least one switching device having at least two operating positions and a main negative output;

at least one standby battery having an at least one standby positive output coupled to the at least one switching device and an at least one standby negative output coupled to the vehicle electrical system negative terminal; and

a main electrical circuit comprising a coupling of the system positive terminal with the at least one switching device, the at least one switching device having at least two operating positions to selectively and exclusively couple either the main or the at least

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one standby battery positive output to the system positive terminal to start and operate the vehicle electrical system;

wherein in a first operating position of an at least two operating positions electrical power is provided exclusively by the main battery at startup of the vehicle electrical system and the main battery is recharged by the vehicle electrical system and an at least one one-way charging circuit receives electrical power from the vehicle electrical system, the at least one one-way charging circuit simultaneously recharging the at least one standby battery without permitting the at least one standby battery to be engaged to start the vehicle electrical system, operate the vehicle electrical system, or electrically couple to the main battery; and

wherein in a second operating position of the at least two operating positions the main battery is electrically isolated by the one-way charging circuit from the at least one standby battery and the at least one standby battery exclusively provides electrical power to the vehicle electrical system at startup; and a controller coupled to the main electrical circuit and the one-way charging circuit, the controller switching said at least one switching device based on input from an at least one sensor to selectively and exclusively provide power in each of the switch positions as enumerated, such that the main battery and the at least one standby battery never supply electrical energy to the vehicle electrical system simultaneously.

Claim 2 previously cancelled.

3. (Previously Amended) The vehicle multiple battery system of claim 1, wherein in a second operating position of the at least two operating positions the system positive terminal is coupled directly to the standby positive output.

4. (Previously Amended) The vehicle multiple battery system of claim 3, wherein the main battery is electrically isolated from the at least one standby battery in the second operating position of the at least two operating positions of the at least one switching device and the at least one standby battery provides electrical power at startup and during operation of the vehicle electrical system.

5. (Previously Amended) The vehicle multiple battery system of claim 3, wherein only the coupling of the positive output of the main battery or the positive output of the at least one standby battery are switched by the switching device.

6. (Previously Amended) The vehicle multiple battery system of claim 3, wherein the second operating position of the at least two operating positions electrically isolates the main battery from the vehicle electrical system and introduces only the at least one standby battery.

7. (Currently Amended) The vehicle multiple battery systemapparatus of claim 3, wherein the controller further comprises an at least one indicator element.

8. (Currently Amended) The vehicle multiple battery systemapparatus of claim 7, wherein the at least one indicator element is at least one of a klaxon, a horn, a light, a plurality of lights, an LCD panel, a simulated human voice, a human voice, a light emitting diode, a plurality of light emitting diodes.

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9. (Currently Amended) The vehicle multiple battery system~~apparatus~~ of claim 73, wherein the at least one indicator element is a plurality of indicator elements having at least one of a red, orange, green, or amber color.

10. (Previously Amended) The vehicle multiple battery system of claim 3, wherein the battery system further comprises a battery housing with a main battery compartment containing the main battery and an at least one standby battery compartment containing the at least one standby battery.

11. (Previously Amended) The vehicle multiple battery system of claim 10, wherein the main battery compartment is located atop the at least one standby battery compartment.

12. (Currently Amended) The vehicle multiple battery system of claim 103, wherein the main battery compartment is located aside the at least one standby battery compartment.

13. (Previously Amended) The vehicle multiple battery system of claim 3, wherein the one-way charging circuit comprises an at least one one-way charging diode.

14. (Currently Amended) The vehicle multiple battery system~~apparatus~~ of claim 3, wherein the at least one one-way charging circuit further comprises an at least one silicon rectifier.

15. (Currently Amended) The vehicle multiple battery system~~apparatus~~ of claim 13, wherein the at least one one-way charging circuit further comprises an at least one Silicon Controlled Rectifier (SCR).

16. (Currently Amended) The vehicle multiple battery system~~apparatus~~ of claim 15, wherein the at least one Silicon Controlled Rectifier (SCR) is coupled to the controller

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and disables the coupling with the at least one standby battery upon receiving a signal from the controller.

17. (Previously Amended) The vehicle multiple battery system of claim 3, wherein the at least one standby battery comprises a single standby battery.

18. (Currently Amended) The vehicle multiple battery system apparatus of claim 3, wherein the at least one battery comprises a plurality of standby batteries.

19. (Currently Amended) The vehicle multiple battery system apparatus of claim 15, wherein the at least one sensor further comprises an at least one of: an at least one main battery voltage sensor, an at least one main battery amperage sensor, an at least one standby battery voltage sensor, an at least one standby battery amperage sensor, an at least one switch position sensor.

20. (Currently Amended) The vehicle multiple battery system apparatus of claim 3, wherein the controller further comprises at least one of: an at least one microprocessor, an at least one signal processor, an at least one set of lookup tables, an at least one memory device, an at least one security protocol/encryption element and an at least one indicator element.

21. (Currently Amended) The vehicle multiple battery system apparatus of claim 3, wherein the controller is a wireless controller system.

22. (Currently Amended) The vehicle multiple battery system apparatus of claim 21, wherein the wireless controller system further comprises a wireless controller, a wireless transceiver, and an input device.

23. (Currently Amended)The vehicle multiple battery systemapparatus of claim 22, wherein the input device is a wireless input device and further comprises an at least one indicator element.

24. (Currently Amended)The vehicle multiple battery systemapparatus of claim 3, wherein the controller is a network interfaceable controller, the network interfaceable controller further comprising a network interface and transceiver.

25. (Currently Amended)The vehicle multiple battery systemapparatus of claim 24, wherein the network interfaceable controller is in communication with a Network Operations Center (NOC) via a network.

26. (Currently Amended)The vehicle multiple battery systemapparatus of claim 25, wherein the network interfaceable controller couples to and communicates with the at least one switching device to detect the position of the at least one switching device and selectively engages the at least one switching device based on the input of at least one of an at least one main battery voltage sensor, an at least one main battery amperage sensor, an at least one standby battery voltage sensor, and an at least one standby amperage sensor.

27. (Currently Amended)The vehicle multiple battery systemapparatus of claim 3, wherein the controller further comprisesincludes a trigger on the controller that signals the controller to periodically change the switch position of the at least one switching device so as to discharge the at least one standby battery in the second operating position of the at least two operating positions for periods of time and then switches back to the first operating position of the at least two operating positions.

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28. (Currently Amended) The vehicle multiple battery system apparatus of claim 26, further comprising an at least one VI sensor.

29. (Previously Amended) The vehicle multiple battery system of claim 3, wherein the multiple batteries are part of an at least one of a six-volt, a twelve-volt, a fourteen-volt, and a twenty-four volt battery vehicle electrical system.

30-65. CANCELED

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard V. Muralidar whose telephone number is 571-272-8933. The examiner can normally be reached on 9:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm E. Ullah can be reached on 571-272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard V. Muralidar/  
Examiner, GAU 2838  
1/21/2008

  
**BAO Q. VU**  
**PRIMARY EXAMINER**